TECHNICAL SERVICE AGREEMENT No. 85Y11

Article I. Parties to the Agreement

The Parties to this Agreement are UChicago Argonne, LLC as operator of ARGONNE NATIONAL LABORATORY ("the Laboratory") operating under Prime Contract No. DE-AC02-06CH11357 ("Prime Contract") with the United States Government ("Government") represented by the U. S. DEPARTMENT OF ENERGY ("DOE"), and BATTELLE ("Sponsor"). The Laboratory agrees to perform the work on a best effort basis as set forth under Proposal No. P-10131, attached hereto as Appendix A. It is understood by the Parties that the Laboratory is obligated to comply with the terms and conditions of the Prime Contract when providing goods, services, products, processes, materials, or information to the Sponsor under this Agreement.

Article II. Term of the Agreement

The Laboratory estimated period of performance for completion of the work described in Appendix A is through April 30, 2011. The effective date of this Agreement shall be the date on which it is signed by the last of the Parties below.

Article III. Costs and Payments

The estimated cost of the work to be performed is \$65,000.00. The Laboratory shall recover the actual cost of the work. Services are charged at the rate in effect during the month in which the services are performed. The Laboratory has no obligation to continue or complete performance of the work at a cost in excess of its estimated cost, including any subsequent amendment.

A. The Sponsor shall advance the following amount in United States dollars (U.S.\$) at the time shown below:

Amount Due Date Due

\$32,500.00 Upon execution of Agreement

Advance payment shall be recorded in the Laboratory's account until the last three (3) months of the Agreement term at which time it shall be liquidated by charging costs incurred during that period to the advance payment account. Advance payment in excess of total costs incurred by the Laboratory under this Agreement shall be refunded to the Sponsor.

B. Once each month during the Agreement term the Laboratory shall invoice the Sponsor for costs incurred in the previous month. Payment for such costs shall be due not later than thirty (30) days after the invoice date, except to the extent the invoice states that costs are being charged to the advance payment account as provided in Paragraph A above.

Article IV. Patents

All of the work performed by the Laboratory shall be in accordance with the requirements of the Prime Contract, as amended, and all rights in data and in inventions made in the course of or under this Agreement will be in accordance with the terms of the Prime Contract.

Article V. Disclaimer

THE GOVERNMENT AND THE LABORATORY MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS AGREEMENT, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT; THAT THE GOODS, SERVICES, MATERIALS, PRODUCTS, PROCESSES, INFORMATION, OR DATA TO BE FURNISHED HEREUNDER WILL ACCOMPLISH INTENDED RESULTS OR ARE SAFE FOR ANY PURPOSE INCLUDING THE INTENDED PURPOSE; OR THAT ANY OF THE ABOVE WILL NOT INTERFERE WITH PRIVATELY OWNED RIGHTS OF OTHERS. NEITHER THE GOVERNMENT NOR THE LABORATORY SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DELIVERED UNDER THIS AGREEMENT.

NEITHER THE GOVERNMENT, THE DOE, THE LABORATORY, NOR PERSONS ACTING ON THEIR BEHALF WILL BE RESPONSIBLE, IRRESPECTIVE OF CAUSES, FOR FAILURE TO PERFORM THE SERVICES OR FURNISH THE MATERIALS OR INFORMATION HEREUNDER AT ANY PARTICULAR TIME OR IN ANY SPECIFIC MANNER THEREFOR WHERE APPROPRIATE.

Article VI. General Indemnity

The Sponsor agrees to indemnify and hold harmless the Government, the DOE, the Laboratory, and persons acting on their behalf from all liability, including costs and expenses incurred, to any person, including the Sponsor, for injury to or death of persons or other living things or injury to or destruction of property arising out of the performance of the Agreement by the Government, the DOE, the Laboratory, or persons acting on their behalf, or arising out of the use of the services performed, materials supplied, or information given hereunder by any person including the Sponsor, and not directly resulting from the fault or negligence of the Government, the DOE, the Laboratory, or persons acting on their behalf.

Article VII. Product Liability Indemnity

Except for any liability resulting from any negligent acts or omissions of the Government or the Laboratory, the Sponsor agrees to indemnify the Government and the Laboratory for all damages, costs, and expenses, including attorney's fees, arising from personal injury or property

damage occurring as a result of the making, using, or selling of a product, process, or service by or on behalf of the Sponsor, its assignees, or licensees, which was derived from the work performed under this Agreement. In respect to this Article, neither the Government nor the Laboratory shall be considered assignees or licensees of the Sponsor, as a result of reserved Government and Laboratory rights. The indemnity set forth in this Article shall apply only if the Sponsor shall have been informed as soon and as completely as practical by the Laboratory and/or the Government of the action alleging such claim and shall have been given an opportunity, to the maximum extent afforded by applicable laws, rules, or regulations, to participate in and control its defense, and the Laboratory and/or Government shall have provided all reasonably available information and reasonable assistance requested by the Sponsor. No settlement for which the Sponsor would be responsible shall be made without the Sponsor's consent unless required by final decree of a court of competent jurisdiction.

Article VIII. Intellectual Property Indemnity - Limited

The Sponsor shall indemnify the Government and the Laboratory and their officers, agents, and employees against liability, including costs, for infringement of any United States patent, copyright, or other intellectual property arising out of any acts required or directed by the Sponsor to be performed under this Agreement to the extent such acts are not already performed at the facility. Such indemnity shall not apply to a claimed infringement that is settled without the consent of the Sponsor unless required by a court of competent jurisdiction.

Article IX. Use of Information

The DOE shall have the right to use, without payment of any compensation, any information acquired by the DOE or the Laboratory in connection with or as a result of the work hereunder for any purpose.

Article X. Export Control

The Parties understand that materials and information resulting from the performance of this Agreement may be subject to export control laws and that each Party is responsible for its own compliance with such laws.

Article XI. Termination

Performance of work under this Agreement may be terminated at any time by either Party, without liability, except as provided herein, upon giving a thirty (30) day written notice to the other Party. Such notice will be effective upon receipt of written notice by the other Party. In the event of termination, the Sponsor shall be responsible for the Laboratory's costs (including closeout costs), through the effective date of termination, but in no event shall the Sponsor's cost responsibility exceed the total cost to the Sponsor as described in Article III above.

Article XII. Sponsor's Purchase Order

Any terms and conditions appearing on Sponsor's purchase order shall have no force or effect. The above terms and conditions hereof are the only terms and conditions applicable to this transaction,

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE EXECUTED THIS AGREEMENT.

FOR U	JCHICAGO ARGONNE, LLC
(As O	perator of ARGONNE NATIONAL LABORATORY):
By:	Marlene 7. Nowotarski
	Marlene Frances Nowotarskil
Title:	Assistant Contract Specialist
Date:	10.26.10
BATT	ELLE:
By:	MM:M
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Title:	MARK W. WIE SENSOR SUBLONIRACTS REPRESENTATIVE
Doto	11-10-10

Appendix A

Proposal P-10131

TECHNICAL SUPPORT FOR LOW-LEVEL RADIOLOGICAL WASTE EVALUATION OF VARIOUS BASE REALIGNMENT AND CLOSURE ACTIVITIES

Work proposed by

Argonne National Laboratory Environmental Science Division 9700 South Cass Avenue Argonne, IL 60439

Principal Investigator: Dr. Robert Johnson

Submitted to

Mr. Travis Williamson Battelle 505 King Avenue Columbus, OH 43201 (614) 424-4796 Phone

e-mail williamsont@battelle.org

October 2010

TECHNICAL SUPPORT FOR LOW-LEVEL RADIOLOGICAL WASTE EVALUATION OF VARIOUS BASE REALIGNMENT AND CLOSURE ACTIVITIES

Proposal P-10131

INTRODUCTION AND OBJECTIVES

On behalf of the United States Department of the Navy (DON), Battelle is preparing to implement an evaluation of practices currently applied at various Base Realignment and Closure (BRAC) cleanup sites to characterize and dispose of soil/debris containing radium-226 (Ra-226), and classified as low-level radiological waste (LLRW). The primary objectives of this Statement of Work (SOW) include the following:

- Evaluate current practices at BRAC bases, including Hunters Point Shipyard, Treasure Island, and Alameda Point, for identifying and disposing of LLRW.
- Develop recommendations to refine existing practices for identifying LLRW that are sufficiently conservative to ensure LLRW is identified and properly disposed of, but not so conservative that excessive quantities of non-LLRW are disposed of as LLRW.
- Assist Battelle with estimating potential savings to the DON if the recommendations provided in the evaluation are implemented.
- Develop a report that documents the LLRW evaluation and summarizes the conclusions and recommendations.

Battelle will be the primary point of contact with the DON's project team, which will be managed by the Engineering Service Center of the Naval Facilities Engineering Command, in Port Hueneme, California, with support from the BRAC Program Management Office West and the DON's Radiological Affairs Support Office (RASO). As described in this proposal, Argonne National Laboratory (Argonne) will provide technical support to Battelle in specific areas.

PROPOSED SCOPE

Qualified staff members at Argonne will provide the following technical support to Battelle during the LLRW evaluation requested by the DON.

Task 1 - Data Review

 Review all applicable reports, data, background calculations, and information provided by the DON to gain a complete understanding of the current field practices for characterizing and disposing of LLRW at BRAC cleanup sites, and to take the lead on documenting the current field practices under Task 3 (see below).

- Prepare for, travel to and from, and participate in a series of technical meetings with the DON in San Diego, California, that are assumed to occur over two full days.
- Take the lead in identifying recommendations to adjust current practices such that the
 quantity of non-LLRW that is disposed of as LLRW is reduced, while soil/debris that
 exceeds the LLRW cleanup level of 1 pCi/g plus background is identified and disposed of
 correctly.
- Evaluate whether a less conservative field screening level could be used that provides
 assurance that LLRW is classified correctly, while reducing the volume of non-LLRW
 that is classified as LLRW. If a different screening level is recommended, the technical
 support subcontractor should consider the potential for regulatory agency (and other
 project stakeholder) acceptance, given their participation in the project planning process
 and their concurrence on past planning documents.

All tasks are to be completed with a period of 6 months and at a cost not to exceed \$65,000, as shown in Table 1.

Task 2 – Cost Analysis

• Assist Battelle with determining the potential cost savings based on implementation of the recommendations to adjust the current practices identified under Task 1.

Task 3 – Reporting

- Take the lead in developing the technical content of a draft and final report that documents the evaluation that is completed as part of the project and summarizes the conclusions and recommendations. The conclusions and recommendations of the report are to be fully described and supported by sound technical reasoning presented in other portions of the document. One of the primary expectations is that the recommendations, if implemented, will lead to an improved LLRW characterization/disposal process that can be measured through cost avoidance, reduced cleanup times, acceptance by regulatory agencies (and other project stakeholders), and/or other tangible or intangible benefits. The report needs to be clearly organized and written in a manner that can be understood by the general public. The draft report will be issued to the Navy for review, after which the Navy will issue review comments.
- Assist with addressing Navy review comments on the draft report and development of the final report.

QUALITY ASSURANCE

The purpose of the Argonne quality assurance (QA) program is to establish procedures for performing high-quality work on projects and to ensure that the planned procedures are being followed during the course of the work. Quality assurance procedures are followed with regard to project planning, field activities, laboratory analysis, data analysis, review of reports.

documentation, and records retention. The Argonne QA program conforms to good management practices of DOE Order 414.1A, Quality Assurance, and Argonne and subcontractors will consider that document as guidance for selected QA work plans.

ENVIRONMENT, HEALTH, AND SAFETY

Argonne's policy is to conduct its activities so that worker and public safety are given the highest priority. Argonne will comply with all applicable federal and state laws, regulations, and orders to protect the health and safety of workers and the public and to minimize accidental damage to property. Argonne's environment, health, and safety policy is implemented through a number of manuals and handbooks. Compliance is ensured by formal assignment of responsibilities, the establishment of pertinent committees, and internal appraisals and audits that meet DOE requirements for independence and frequency.

KEY PERSONNEL

The work as described above will be performed by Dr. Kurt Picel and Dr. Robert Johnson, both with the Environmental Science Division, Argonne National Laboratory.

TABLE 1 Estimated Costs P-10131^a

	FY 2011	
	Person-	Cost
Component	Months	(\$1,000)
Direct Effort		
Scientific Direct	1.8	35.7
Secretarial/Clerical Direct	0.2	1.4
Total Effort	2.0	37.1
Other Direct Costs		
Materials & Supplies		0.5
Editorial		3.0
Travel		5.0
Total Other Direct Costs		8.5
Total Direct Cost		45.6
General and Administrative		19.4
LDRD Indirect		4.5
Total Argonne Cost		65.0

² Costs may be rounded.